

IN THE CLAIMS

1. (currently amended) Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530° or below, said glass-ceramics containing 0.5 - 2% of CaO, 3.5%-6% TiO₂ and 0.5% - 2%MgO on the basis of the amount of total oxides, being substantially free of P₂O₅, having an average linear thermal expansion coefficient (α) within a range from $+6 \times 10^{-7}/^{\circ}\text{C}$ to $+35 \times 10^{-7}/^{\circ}\text{C}$ within a temperature range from 100° to 300° and having 80% transmittance wavelength (T_{80}) of 700nm or below.
2. (original) Low expansion transparent glass-ceramics as defined in claim 1 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.
3. (original) Low expansion transparent glass-ceramics as defined in claim 1 having a heat resisting temperature of 800°C or over.
4. (original) Low expansion transparent glass-ceramics as defined in claim 1 having Young's modulus of 90 GPa or over.
5. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing β -quartz or β -quartz solid solution as a predominant crystal phase.
6. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing 1.5% - 3.5% Li₂O in mass % on the basis of amount of total oxides.

7. (original) Low expansion transparent glass-ceramics as defined in claim 1 wherein amount of eluting lithium ion is less than 0.0050 μ g/cm².

8. (canceled)

9. (canceled)

10. (currently amended) Low expansion transparent glass-ceramics as defined in claim 1 [[9]] containing ZnO in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

11. (currently amended) Low expansion transparent glass-ceramics as defined in claim 1 [[9]] containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

12. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing a total amount of R'O ingredients (where R' is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

13. (original) Low expansion transparent glass-ceramics as defined in claim 1 comprising in mass % on the basis of amount of total oxides:

SiO ₂	50 - 65%
Al ₂ O ₃	20 - 30%
MgO	0.5 - 2%
CaO	0.5 - 2%
SrO	0 - 10%
BaO	1 - 5%
ZnO	0.5 - 15%
Li ₂ O	1.5 - 3.5%
TiO ₂	3 - 6%
ZrO ₂	1 - 5%

Nb_2O_5	0 - 5%
La_2O_3	0 - 5%
Y_2O_3	0 - 5%
As_2O_3 and/or Sb_2O_3	0 - 2%.

14. (canceled)

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43. (currently amended) Low expansion transparent glass-ceramics obtained by heat treating a base glass produced by melting oxides at a melting temperature of 1530° or below, said glass-ceramics being substantially free of P_2O_5 and having an average linear thermal expansion coefficient (α) within a range from $+6 \times 10^{-7}/^{\circ}C$ to $+35 \times 10^{-7}/^{\circ}C$ within a temperature range from 100° to 300° and having 80% transmittance wavelength (T_{80}) of 700nm or below said oxides being selected from the group comprising in mass % on the basis of the amount of total oxides:

SiO ₂	50 - 65%
Al ₂ O ₃	0 - 30%
MgO	0.5 - 2%
CaO	0.5 - 2%
SrO	0 - 10%
BaO	1 - 5%
ZnO	0.5 - 15%
Li ₂ O	1.5 - 3.5%
TiO ₂	3 - 6%
ZrO ₂	1 - 5%
Nb ₂ O ₅	0 - 5%
La ₂ O ₃	0 - 5%
Y ₂ O ₃	0 - 5%
As ₂ O ₃ and/or Sb ₂ O ₃	0 - 2%.